

Appl. No. 10/800,622
Amendment dated: April 28, 2008
Reply to OA of: December 31, 2007

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1(currently amended). A stable and taste masked pharmaceutical dosage form comprising porous apatite grains and a drug entrapped in pores of said grains, wherein said grains have a size of 0.1-1000 μm and said pores of said grains have an opening of 0.5-300 nm, and said dosage form further comprising a biocompatible polymer, wherein said porous apatite grains are bound by said biocompatible polymer to form a microspherical composite having a size of 0.5-1000 μm .

2(original). The pharmaceutical dosage form according to claim 1 further comprising a water soluble polymer entrapped in pores of said grains in an amount of 0.1-10% based on the weight of the grains.

3(original). The pharmaceutical dosage form according to claim 1, wherein said grains have a size of 1 to 300 μm .

4(original). The pharmaceutical dosage form according to claim 1, wherein said pores have an opening of 1 to 200 nm.

5(original). The pharmaceutical dosage form according to claim 1, wherein said grains have a specific surface area of 32 to 58 m^2 per unit gram.

6(original). The pharmaceutical dosage form according to claim 1, wherein said drug entrapped in said porous apatite grains is in an amount of 0.1-45% based on the weight of the grains.

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7(original). The pharmaceutical dosage form according to claim 6, wherein said drug entrapped in said porous apatite grains is in an amount of 1-30% based on the weight of the grains.

8(original). The pharmaceutical dosage form according to claim 2, wherein said water soluble polymer is selected from the group consisting of chitosan, gelatin, agar, cellulose, chitin, starch, dextrin, cyclodextrin, polylactic acid, polyamino acid, polyethylene glycol, polyacrylates, hyaluronic acid, polyvinyl alcohol, povidone and mixture thereof.

9(original). The pharmaceutical dosage form according to claim 8, wherein said water soluble polymer is cellulose, polyethylene glycol, polyvinyl alcohol, or povidone.

10(original). The pharmaceutical dosage form according to claim 1, wherein said apatite grains have a Ca to P molar ratio of 1.1 to 2.1.

11(original). The pharmaceutical dosage form according to claim 10, wherein said apatite grains have a Ca to P molar ratio of 1.3 to 1.60.

12(original). The pharmaceutical dosage form according to claim 1, wherein said apatite grains contains carbonate in an amount of 0.1-40% based on the weight of the grains.

13(original). The pharmaceutical dosage form according to claim 12, wherein said apatite grains have a Ca to P molar ratio of 1.3 to 1.60.

14(original). The pharmaceutical dosage form according to claim 1, wherein said drug is a peptide, protein, enzyme, DNA, RNA, nutrient supplement agent, anti-

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inflammatory drug, anti-biotic drug, anti-histamine drug, anti-bacterial drug, anti-fungal drug, decongestant, anti-depressant, anti-psychotic drug, anti-viral drug, anti-oncolytic drug, vaccine, anti-epileptic drug, anti-asthma drug, antioxidant or extract of herb.

15(original). The pharmaceutical dosage form according to claim 1, wherein said drug is selected from a group of zinc gluconate, copper gluconate, carbinoxzmine maleate, dextromethorphan hydrobromide, glyceryl guaiacolate, pseudoephedrine hydrochloride, triprolidine hydrochloride, acetaminophen, aspirin, ibuprophen, dexibuprophen lysinate, naproxen, ketoprofen, lactam, quinolone, macrolide or salts thereof, loperamide, famotidine, ranitidine, cimetidine or salts thereof, ibersartan, captopril, lisinopril or salts thereof, nefzodone, buspirone or salts thereof, chlorpheniramine, astemizole, pseudoephedrine, medicon, anpirin, actirin, nidolin, ascorbic acid, hydrocortisone, 5-fluorouracil, cis-platin, paclitaxel, ampicillin, cefadroxil, clindamycin, neomycin, nystatin, polyphenol, hydroquinone, and retinal A.

16(original). The pharmaceutical dosage form according to claim 15, wherein said drug is zinc gluconate, copper gluconate, aspirin, ibuprophen or ascorbic acid.

17(canceled).

18(currently amended). The pharmaceutical dosage form according to claim [[17]] 1, wherein said biocompatible polymer is in an amount of 0.5% to 30% based on the weight of the grains.

19(currently amended). The pharmaceutical dosage form according to claim [[17]] 1, wherein said biocompatible polymer is selected from the group consisting of polylactic acid, polyglycolic acid, poly(lactic-co-glycolic acid), polyanhydrides,

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polyethylene glycol, polyethylene oxide, polyacrylates, polymethacrylates, dextran, polysaccharides, hyaluronic acid, and mixture thereof.

20(original). The pharmaceutical dosage form according to claim 19, wherein said biocompatible polymer is polylactic acid, polyethylene glycol, or poly(lactic-co-glycolic acid).

Claims 21-71(canceled).

72(new). The pharmaceutical dosage form according to claim 2, wherein said grains have a size of 1 to 300 μm ; said pores have an opening of 1 to 200 nm, said grains have a specific surface area of 32 to 58 m^2 per unit gram, said drug entrapped in said porous apatite grains is in an amount of 1-30% based on the weight of the grains, wherein said water soluble polymer is cellulose, polyethylene glycol, polyvinyl alcohol, or povidone; and wherein said apatite grains have a Ca to P molar ratio of 1.3 to 1.60.